

What is claimed is:

1. An external protection system for a vehicle having a passenger compartment, the external protection comprising:

a plurality of external guards in communication with said passenger compartment, said plurality of external guards being spaced a distance away from said passenger compartment such that a crush zone exists between said plurality of external guards and said passenger compartment.

2. The system of claim 1, wherein at least one of said plurality of external guards consists of a structural rail.

3. The system of claim 2, wherein said structural rail is integrally styled with the design character of the vehicle.

4. The system of claim 1, wherein at least one of said plurality of external guards is a structural surface.

5. The system of claim 4, wherein said structural surface is integrally styled with the design character of the vehicle.

6. The system of claim 1, wherein at least one of said plurality of external guards consists of a combination of at least one guide rail and at least one structural surface.

7. The system of claim 1, wherein at least one of said plurality of external guards can be deployed from a normal position to a protective

position by an actuating mechanism for energy absorption purposes in the event of a crash.

8. The system of claim 7, wherein said actuating mechanism includes one or more sensors, which can deploy said at least one external guard to said protective position when said one or more sensors detect an impending crash condition.

9. The system of claim 7, wherein said actuating mechanism includes one or more sensors, which can deploy said at least one external guard to said protective position when said one or more sensors detect first collision contact.

10. The system of claim 7, wherein said actuating mechanism includes one or more sensors, which can deploy said at least one external guard to said protective position when said one or more sensors detect a rollover condition.

11. The system of claim 1, wherein said at least one of said plurality of external guards includes at least one airbag housed therein that can be deployed by an actuating mechanism to protect said passenger compartment from impact by absorbing force imported thereto.

12. The system of claim 11, wherein said at least one airbag housed within said at least one external guard, functions for purpose of impact absorption in conjunction with at least one interior airbag within said passenger compartment.

13. The system of claim 11, wherein said actuating mechanism includes one or more sensors, which can deploy said at least one airbag when said one or more sensors detect an impending crash condition.

14. The system of claim 11, wherein said actuating mechanism
5 includes one or more sensors, which can deploy said at least one airbag when said one or more sensors detect first contact collision.

15. The system of claim 11, wherein said actuating mechanism includes one or more sensors, which can deploy said at least one airbag when said one or more sensors detect a rollover condition.

10 16. The system of claim 1, wherein at least one of said plurality of external guards is a structural surface.

17. The system of claim 1, wherein at least one of said plurality of external guards is moveable for access to said passenger compartment, for vehicle service, for storage or for reconfiguration for accommodating
15 external load or racks for load carrying.

18. The system of claim 6, wherein a combination of said at least one guard rail and said at least one structural surface, may be utilized to effect a design.

19. The system of claim 1, wherein at least one of said plurality
20 of external guards is rigidly mounted to said passenger compartment and vehicle structure.

20. The system of claim 1, wherein at least one of said plurality of external guards is mounted to the vehicle by an elastomeric coupling or isolation for purpose of absorbing energy.

21. The system of claim 1, wherein at least one of said plurality
5 of external guards protective guard is mounted to the vehicle by a shock absorbing system.

22. The system of claim 21 wherein said shock absorbing system is a hydraulic mechanism.

23. The system of claim 21, wherein said shock absorbing
10 system is a pneumatic mechanism.

24. The system of claim 21, wherein said shock absorbing system is a rheomagnetic mechanism.

25. The system of claim 21, wherein said shock absorbing system mounting is actively adjustable.

15 26. The system of claim 21, wherein said shock absorbing system is in communication with at least one sensor to effectuate activation upon a predetermined sensed condition.

27. The system of claim 1, wherein at least one of said plurality of external guards is moveable between an extended position and a
20 retracted position.

28. The system of claim 27, wherein in said extended position said at least one external guard is locked to accommodate storage.

29. The system of claim 27, wherein said at least one external guard can be moved to said retracted position for reducing the size of the vehicle in connection with a vehicle where other elements adjust.